PPG HI-TEMP 1027™
Heat-resistant coating prevents corrosion under insulation (CUI) in extreme temperature ranges

Our proven and simple to use technology reduces downtime and maintenance costs.
Corrosion under insulation (CUI) is one of the biggest and costliest problems facing today’s refineries and petrochemical facilities. PPG HI-TEMP 1027 coating is the ideal solution as it not only prevents CUI but can also be applied directly to hot carbon and stainless steel substrates, thereby eliminating the need to shutdown equipment for maintenance and repair.

Proven, long-lasting protection

We formulated the PPG HI-TEMP 1027 coating specifically to operate in extreme temperature conditions where pipes and other assets are exposed to process temperatures ranging from –196°C to 650°C (-321°F to 1,200°F) taking all the key properties into account that a heat-resistant coating must have in order to be effective.

Resistance to boiling water

PPG HI-TEMP 1027 is resistant to intermittent immersion in boiling water. Designed to resist the severe ‘real world’ conditions of a continually changing harsh environment, it can withstand the repeated cycle of heat, then thermal shock, then immersion in boiling water, then back to heat, and so on.

Heat and thermal shock resistance

Cracking, fracturing and delamination caused by thermal shock allows water to come into contact with insulated steel and is therefore a major cause of CUI.

PPG HI-TEMP 1027 heat-resistant technology is able to withstand severe cyclic conditions in the cryogenic temperature range through to an elevated temperature of 650°C (1,200°F), with no affect on the coating.

Direct application to hot steel up to 316°C (600°F)

Chemical plants and refineries affected by CUI often cannot, or will not, shut down the equipment. To meet this challenge, we have developed PPG HI-TEMP 1027 so that it can be applied directly to hot operating equipment and surface application temperatures up to 316°C (600°F). This reduces expensive plant shutdowns and potential revenue losses.

Excellent choice for maintenance – easy for touch-up and repair

Formulated for easy application, our PPG HI-TEMP 1027 coating is surface tolerant, and can be applied to tightly adhering rust in maintenance and repair situations. Its unlimited recoat window also makes future touch-up and repair tasks easier.

Simple to use

Since most generic CUI systems are epoxy based and therefore contain at least two components, they are inherently more difficult to work with. PPG HI-TEMP 1027 provides an efficient alternative. It is a single-component material, which can be applied by spray, brush and roller, and dries by air, so no heat cure is required.

Established worldwide track record with excellent results

World class international refineries and petrochemical facilities have used the PPG HI-TEMP 1027 coating for over a decade. The list of clients and case studies can be made available upon request. Please contact your local PPG sales representatives for more details.

Benefits

- Resistant to extreme temperature ranges
- Prevents corrosion under insulation (CUI) in insulated- and non-insulated services
- Ideal solution for hot and cryogenic service
- Reduces downtime as it can be applied directly to hot operating equipment
- Prevents chloride-induced external stress corrosion cracking of insulated austenitic stainless steel
- Excellent UV stability to prevent corrosion of non-insulated surfaces subject to atmospheric exposure
- Simple to use: one-component, surface tolerant, and open recoat window
- Proven worldwide track record with excellent results